Applicant: MICHAEL F. O'ROURKE
Title: METHODS OF DISTINGUISHING BETWEEN
VASOCONSTRICTION AND VASODILATION

AS ACAUSE OF HYPOTENSION

Listing of the Claims:

1. (Original) A method for measuring the arterial waveform invasively or non-

invasively from a peripheral artery, wherein the waveforms are accurately recorded and

secondary pressure waveforms are identified.

2. (Original) A method according to claim 1 wherein a series of pressure

waveforms are ensemble-averaged into a single waveform to provide consistency of waveform

detail.

3. (Original) A method according to claim 1 wherein the waveforms are

subjected to harmonic analysis and moduli of their harmonic components are compared.

4. (Original) A method according to claim 1 wherein a hypotensive individual is

confirmed to have the higher (second and above) greater than the first harmonic can be

considered as having vasoconstriction as a cause of hypotension.

5. (Currently Amended) A method according to claim 1 wherein a hypotensive

individual in sinus rhythm or without significant arrhythmia is confirmed to have the lowest

fundamental harmonic, at heart rate less than 120/min, dominant over all the other harmonics and

can be concluded as likely to have vasodilatation vasodilation as the cause of hypertension.

6. (Currently Amended) A method according to claim 1 any one of claims 1 to 5

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wherein, in the hypotensive individual, amplitude of the primary wave waveform (peak to wave

foot) is compared to amplitude of the secondary waveform (secondary peak to wave foot) and

the secondary wave confirmed to have amplitude less than 25% of the primary initial waveform

as denoting hypotension due to vasodilation whereas amplitude of the secondary waveform

greater than 30% of the primary initial wave denotes hypotension due to vasoconstriction and

acute blood loss, cardiac failure, tamponade or pulmonary embolism.